

CLAIMS

What is claimed as new and desired to be protected by Letters Patent of the United States is:

1. An audio amplifier, comprising:
amplification means for amplifying and outputting audio signals based on a supplied first power source voltage; and voltage conversion means arranged in a latter stage of said amplification means for performing a voltage conversion from an input voltage to an output voltage based on a supplied second power source voltage,
wherein said first power source voltage and said second power source voltage are different from each other, and said voltage conversion means provides the output voltage at a voltage greater than the input voltage.

2. An audio amplifier, comprising:
a power switch comprising transistors which perform switching operations according to a pulse width of a supplied driving signal, and which amplify and output audio signals by using a first power source voltage supplied to

said transistors; and
a transformer arranged in a latter stage of said power switch which performs a voltage conversion based on the audio signals supplied by said power switch by using a second power source voltage,
wherein said first power source voltage and said second power source voltage are different from each other, and an output voltage provided by the transformer is greater than the first power source.

3. The audio amplifier of claim 2, wherein areas of said transistors comprising said power switch are selected to allow a desired quantity of current into said transformer based on said first power source voltage.
4. An audio amplifier structured to drive an audio output means though plural switched transistors, the amplifier comprising:
voltage conversion means for converting an input current into an voltage output based on a second power source voltage arranged between amplification means for

amplifying and outputting audio signals based on a first power source voltage supplied to said plural switched transistors and said audio output means, wherein said second power source voltage is different from said first power source voltage, and said output voltage is greater than the first power source voltage.